



THE TENDENCY OF DELINQUENCY IN SPORTS HIGH SCHOOL AND GENERAL HIGH SCHOOL STUDENTS

İsa Doğanⁱ

Karabük University,
Karabük, Turkey

Abstract:

In this study, it was aimed to determine the tendency of delinquency of the students who are studying in sports and general high school and to determine whether the tendency of delinquency of the participants according to their demographic characteristics shows a significant change. In the study, which was carried out in the screening research model, "Delinquency Scale" developed by Apaydın (2010) was used as data collection tool on 1485 students studying in 2015-2016 academic year. Descriptive statistics, t test in unrelated measures, one-way variance analysis was calculated according to the answers of students. As a result of the research, it was determined that the tendency of delinquency of the students in the physical education lesson was above the average. In addition, it was identified that the tendency of delinquency of female students compared to male students; students studying in general high school compared to sports high school was higher. Non-participation to sports activities in general high school and non-participation in primary school level were found to have a higher tendency to delinquency than those who participated in the activities.

Keywords: delinquency; physical education; sports activities

1. Introduction

Education can be defined as the process of changing behavior in terminal direction in the individual by individual's interaction with the environment. Education is a process that begins with the family and continues in school. The concept of education has been institutionalized by being established on certain bases (Şişman, 2006). Modern education is a form of education that allows individuals to think of society as multi-faceted and transfer them in correlation, thinking that the information they obtained are not the sole truth and making them applied. There are many aspects to education and physical education is one of them. The organization of structural movements within

ⁱ Correspondence: email isadogan33@gmail.com

educational integrity, certain objectives, in controlled and orderly form are called physical education. (Özyiğit, 1991).

Human beings are entities that learn all through their lives by interacting with their environment. It is an important factor to acquire the necessary knowledge, skills and attitudes in order for humans to be able to live their lives and to adapt to the society in which they live. Understanding the behavior is also necessary to identify the causes of the current problems, as well as to estimate the future undesirable behaviors. Any behavior referred to as a problem depends on the teacher's professional understanding as well as contextual variables. (Özdemir and Yalın, 2000). These behaviors, which are perceived as problems, are called unwanted behavior. In education and school environment, unwanted behavior is called any kind of behavior that prevents educational efforts, and unwanted behaviors affect the individual negatively, while the negative effects of behavior are at different levels. In this respect, undesirable behaviors are ranked in a range of "nondestructive" to "very destructive" (Başar, 2001).

Unwanted student behaviors are an important influence that brings with it many negativities within the educational environment. Because the consequences of behaviors negatively affect both the student who conducts the behavior and the teachers and friends around him. Determining the causes of unwanted behaviors in this direction will also provide effective information on coping with behaviors (Karakaş, 2005). Fernandez-Balboa (1991) also mentions that unwanted student behaviors distracting both teachers and students from learning purposes, can be solved by spending time on management, not on the learning of the student.

Among the leading unwanted student behaviors most commonly seen in schools are colloque, inappropriate actions, improper use of class materials, resistance to teacher, unauthorized taking of something belonging to someone else, preventing others from watching the lesson, making habit of talking without permission, whispering to each other, distracting others. (Erdoğan, 2001).

Korkmaz (2005) mentions four main benchmarks for the behavior of students in class as problematic behavior. These are:

- Behavior preventing learning of the student himself or his friends in the class,
- Behavior endangering the safety of the student himself or his friends in the class,
- Behavior damaging the tools and materials of school or properties of others,
- Behavior preventing the student from socializing with other students.

These behaviors distract the students from the lessons and negatively affect the education process of the students. Teachers are required to possess necessary knowledge and ability to act regarding observation, prevention and interfering with delinquency. Therefore, unwanted student behavior is a small but important part of classroom management. (Wang, Haertel, and Walberg, 1993). In this research, unwanted behaviors that may occur in the physical education class are emphasized.

In the physical education class, situations such as students not having interest in the class, not devoting themselves to the class, etc. negatively affects the teaching of the lesson. For example, the act of not doing what the teacher says is manifested by the

students cluttering the materials and not properly doing the exercises. (Hardy A. C.,1999).

In the result of Suppaporn's (2000) study which obtained the opinions of secondary school students on unwanted behaviors in physical education classes, unwanted behaviors are defined as "*doing what the teacher says not to do or not doing what the teacher says to do*". In another study oriented to secondary school students (Hastie and Siedentop, 1999), they attempted to hide from the teachers all unwanted student behaviors reported by the students in the observed classrooms (Suppaporn, 2000), so teachers may not be aware of all unwanted behaviors.

Goyette, Dore, and Dion (2000) reported three levels (primary, secondary, and tertiary) of unwanted behavior that reflected increased violence when the relevant literature was reviewed. With a decrease of 23% of behaviors in the primary group, student unwanted behavior was divided into a wide spectrum, with 42% of the observed problems in secondary behaviors and the most serious unwanted behavior with time in tertiary group with 35%. Although not classifying the types of behaviors, McCormack (1997) reported in his study that there were 12 different management problems, Kulinna et al., (2006) reported that there were over 50 different behavior problems identified by teachers in both the primary and secondary school setting.

In order to prevent unwanted behaviors in the physical education lesson, it is necessary to first determine the behaviors and determine their reasons. Accordingly, the tendency of delinquency of the students in the physical education lesson within the scope of the research; at the same time, whether the tendency of delinquency of the students according to their demographic characteristics showed a significant change.

2. Method

2.1 Research Model

In this study, it was aimed to determine the tendency of delinquency according to the variables of the delinquency levels of the students of sports high school and general high school and students of general high school students participating in extracurricular sports activities. Accordingly, research is modeled on the general review research model. According to Fraenkel and Wallen (2009), the main purpose of review research is to describe the characteristics of a group. Review research are research approaches that aim to describe a situation that existed in the past or still existing in the present. (Karasar, 2008).

2.2 Study Group

Within scope of the research, a total of 1485 high school students in the general high school (n = 784) and sports high school (n = 701) in the provinces of Ağrı (n = 186), Urfa (n = 163), Istanbul (n = 224), Manisa (n = 167), Ankara (n = 346), Antalya (n = 206) and Karabük (n = 193), in 2015-2016 academic year. Distribution of students according to their demographic attributes is shown in Table 1.

Table 1: Frequency and percentage distributions of personal information form belonging to secondary students

Attributes	Categories	<i>f</i>	%
Grade Level	9. Grade	510	34,3
	10. Grade	367	24,7
	11. Grade	322	21,7
	12. Grade	286	19,3
Gender	Female	675	45,5
	Male	810	54,5
Secondary Education Type	General High School	784	52,8
	Sports High School	701	47,2
Total		1485	100,0

As seen in Table 1, of the students who were interviewed in the scope of the research, 34.3% (n = 510) were at the 9th grade level, 24.7% (n = 367) at the 10th grade level, 21.7% (n = 322) were at the 11th grade level and 19.3% (n = 286) were at the 12th grade level. When the distribution of the students according to their genders is examined; 45.5% were female (n = 675) and 54.5% (n = 810) were male students. When the distribution of the students according to the type of secondary school they attend is examined, 52.8% (n = 784) were in general high school and 47.2% (n = 701) were in sports high school.

Table 2: Frequency and percentage distributions of social (sports) activities information form belonging to general high school students

Attributes	Categories	<i>f</i>	%
Attendance to any sports course	Yes	176	22,4
	No	608	77,6
Attendance to extracurricular sports activities while a primary education student	Yes	470	59,9
	No	314	40,1
Attendance to extracurricular sports activities currently being performed in our school	1 Year	90	11,5
	2 Years and Above	86	11,0
	Not Attending	608	77,6
Total		784	100,0

As shown in Table 2, of the general high school students, 22.4% (n = 176) have stated that they attended to any sports course. It was determined that 59.9% (n = 470) of the students stated that they participated in extracurricular sports activities during primary school. In other words, it is seen that some of the students who are engaged in sports activities in primary education quit the activity in secondary education. It was determined that 11.5% (n = 90) of the students who were interviewed stated that they attended in sports activities for one year and 11.0% (n = 86) attended in sports activities for two or more years. 77.6% of the students (n = 608) stated that they did not attend in extracurricular sports activities.

2.3 Data Collection Tool

In this study, "Delinquency Scale" developed by Apaydın (2010) was used to determine the tendency of delinquency of the secondary school students in the physical education lesson. The scale consists of two factors; first delinquency (KDD) (15 items) and second delinquency (13 items). The scale is prepared in the form of a 5-point Likert scale and is composed of "strongly disagree, disagree, undecided, agree, strongly agree" options. The validity of the two-factor structure was tested by confirmatory factor analysis and it was seen that the harmony index values were acceptable. The coefficient of internal consistency (Cronbach Alpha) for the scale general was found to be $\alpha = 0.85$. The Cronbach Alpha Reliability Coefficient for the primary KDD sub-scale that is the first factor of the scale was calculated as $\alpha = .83$ and for the secondary KDD sub-scale that is the secondary factor was calculated as $\alpha = .70$. (Apaydın, 2010).

Whether the two factor structure of secondary education students whose opinions are obtained is verified in the sampling determined within the scope of this study was tested by confirmatory factor analysis and reliability analysis.

2.3.1 Delinquency Scale Confirmatory Factor Analysis Validity Study

Confirmatory factor analysis (DFA) was used to confirm the previously described two factorial structure of the scale used in the study. Before DFA, the assumptions of normality, extreme value, homogeneity of variances were examined. It was determined that the hypothesis was not satisfied as a result of the skewness and kurtosis coefficients calculated to determine the assumption of hypervariable normality of the data in the study ($p < 0,05$). Because it does not satisfy the hypothesis of a multi variable normality, Robust Maximum Likelihood (Robust ML) parameter estimation method is used instead of Maximum Likelihood (ML) parameter estimation method. Calculated model is first level two factor Robust ML model.

The items with statistically insignificant t value in the calculated DFA were examined and no material without a significant t value was found ($p < 0,05$). The obtained path diagram is shown in Figure 1.

Harmony indexes were found as $\chi^2=1560.41$, $sd=321$, $X^2/sd= 4.86$, $CFI=0.95$, $NNFI=0.95$ and $NFI=0.91$, $GFI=0,90$ $RMSEA=0.069$, $SRMR=0,059$. When the coefficients of the model showing the factorial structure of the scale and the coefficients indicating the relationship between the observed variables and the factors were examined, it was concluded that the harmony indexes were sufficient. When we look at the harmony index values and look at the error values RMSEA and SRMR, it is concluded that there is an acceptable harmony. Given the harmony statistics calculated with DFA, it was decided that the previously defined two-factor 28-item structure of the scale was generally in harmony.

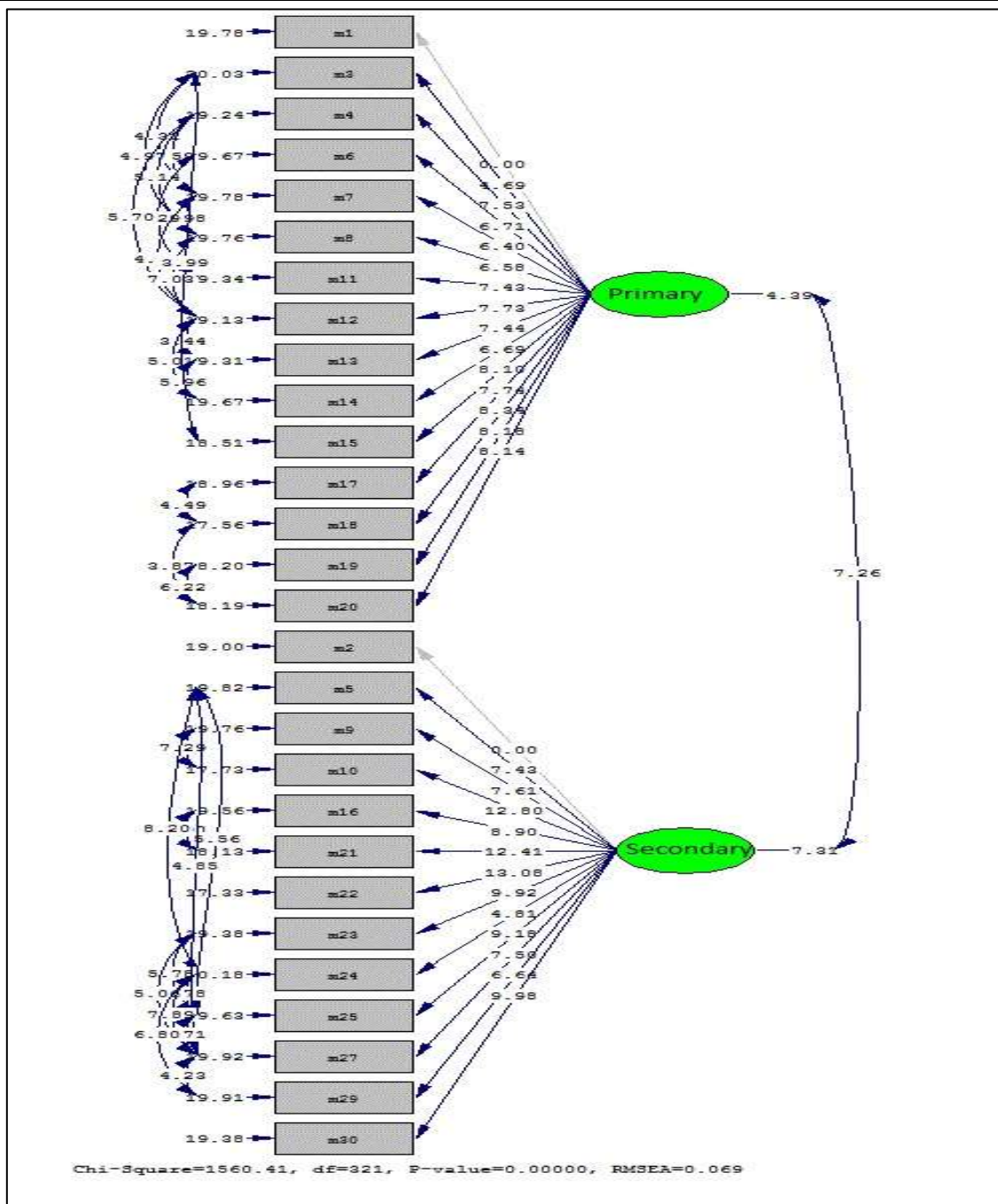


Figure 1: Path Diagram Based on First Level Two Factor Robust ML Method

When Figure 1 is examined, it can be seen that the scale consisting of 28 items and 2 factors is also verified with secondary education students who take physical education lessons.

Regression values of items and t values are given in Table 3.

Table 3: Regression and t Values of DFA

Primary KDD			Secondary KDD		
m	R ²	t	m	R ²	t
M1	0.10	Constant	M2	0.26	Constant
M3	0.042	4.69	M5	0.093	7.43
M4	0.22	7.53	M9	0.099	7.61
M6	0.13	6.71	M10	0.42	12.80
M7	0.11	6.40	M16	0.15	8.90
M8	0.12	6.58	M21	0.38	12.41
M11	0.20	7.43	M22	0.46	13.08
M12	0.25	7.73	M23	0.19	9.92
M13	0.20	7.44	M24	0.035	4.81
M14	0.13	6.69	M25	0.16	9.18
M15	0.34	8.10	M27	0.095	7.50
M17	0.25	7.74	M29	0.071	6.64
M18	0.43	8.34	M30	0.19	9.98
M19	0.37	8.18			
M20	0.36	8.14			

When Table 3 is examined, it is determined that the obtained regression coefficients and t values are significant and their descriptions are at high level. In first factor, m18 is found to be the item most clarifying the model with $R^2 = 0,43$, while m3 is the item least clarifying the model with $R^2 = 0.042$. In the second factor, M22 was found to be the most clarifying item with $R^2 = 0.46$, while m24 was found to be the least clarifying item with $R^2 = 0.035$. Generally, M22 is the item most clarifying the model with $R^2 = 0.46$ and M24 is the item least clarifying the model with $R^2 = 0,035$.

2.3.2 Reliability Study of Delinquency Scale

The reliability of the scale is shown in Table 4 by looking at the Cronbach Alpha internal consistency coefficients for each factor and for the general test. Since this coefficient is calculated considering all the questions, it is the coefficient that best reflects the general reliability structure of the test compared to the other coefficients. (Özdamar, 2004).

Table 4: Cronbach Alpha Reliability Coefficients Belonging to the Factors and Scale in General

	Primary KDD	Secondary KDD	Scale in General
Number of Items	15	13	28
Cronbach α	,81	,75	,87

According to Table 4, Cronbach alpha internal consistency coefficients were concluded to be good reliable with a confidence coefficient of 81 for the primary KDD factor, 75 for the secondary KDD factor, and 87 for the scale in general. This, in turn, means that the scale has internal consistency at an acceptable level for all its factors.

2.4 Data Analysis

The data collected in the research process were entered into the SPSS-15 package program. SPSS and LISREL package programs were used for validity and reliability studies of the scale. Distributions according to the perceptions of the participants by subscales of the scale were given with the mean and standard deviation values. The difference between the tendency of delinquency of the secondary school students according to type of secondary education, gender, attendance in any sports activity and attending any extracurricular sports activity in primary education was examined with Independent-Sample t-test. One-way ANOVA analysis was used to examine in accordance with the city they are studying in, grade level and the duration of attendance in extracurricular sport activities.

3. Findings and Interpretation

Findings of the research were given according to the sub-problems.

3.1 What is the level of tendency of secondary education students regarding the sub-factors and general of delinquency scale?

Descriptive statistics calculated to determine the tendency of delinquency of secondary school students participating in the research in the physical education lesson are shown in Table 5.

Table 5: Descriptive Statistics Results Belonging to the Tendency of the Students to Sub-factors and General of KDD Scale

	N	Minimum	Maximum	\bar{X}	S
Primary KDD	1485	22,00	75,00	55,43	10,03
Secondary KDD	1485	24,00	65,00	47,44	9,05
General KDD	1485	51,00	140,00	102,89	17,37

As seen in Table 5, when perceptions of secondary school students about delinquency are examined, It was determined that the primary delinquencies had an average of \bar{X} =55.43 (S = 10.03) and student averages are 3.69 out of 5. Secondary delinquencies had an average of \bar{X} =47.44 (S = 9.05) and student averages are 3.64 out of 5. Lastly, it was determined that the students who participated in the research had an average of \bar{X} =102,89 (S = 17,36) and an average of 3,67 out of 5. The calculated mean values indicate that the tendencies of primary, secondary and general delinquencies of students are above average.

3.2 Is there any difference between the sub-factors of the delinquency scale and the tendency to the overall scale according to the grade levels of the secondary school students?

One Way ANOVA was calculated to determine whether the tendency of delinquency of the students in the physical education lesson was significantly different from the grade level at which they were taught and the results are shown in Table 6.

Table 6: One-Way ANOVA results on the difference between the sub-factors of the KDD scale and the tendency to the overall scale according to the grade levels of the students

	Grade Level	N	\bar{X}	S	F ₍₃₋₁₄₈₁₎	p	Post Hoc (Tukey)
Primary KDD	9	510	56,27	9,76	4,60	,003*	12>11, 9>11
	10	367	55,29	9,92			
	11	322	53,74	9,27			
	12	286	56,01	11,21			
Secondary KDD	9	510	47,82	8,75	1,23	,296	
	10	367	46,78	9,49			
	11	322	47,82	8,45			
	12	286	47,17	9,60			
General KDD	9	510	104,09	16,92	1,66	,173	
	10	363	102,14	17,48			
	11	320	101,59	15,74			
	12	286	103,18	19,54			

*p<05

When Table 6 is examined, it is determined that there is a significant difference between the primary tendency of delinquency of the secondary school students according to their grade level ($F_{(3-1481)} = 4,60$; $p < 0,05$). As a result of the calculated Tukey test, the primary tendency of delinquency of the students ($\bar{X} = 53,74$) of 11th grade was found to be lower than that of 12th grade students ($\bar{X} = 56,01$) and 9th grade students ($\bar{X} = 56,27$). There is no significant difference between the secondary tendency of delinquency of the students according to their grade level ($F_{(3-1481)} = 1,23$, $p > 0,05$). Similarly, it was found that there was no statistically significant difference between secondary school students' general tendency of delinquency according to grade level ($F_{(3-481)} = 1,66$, $p > 0,05$).

3.3 Is there any difference between the sub-factors of the delinquency scale and the tendency to the overall scale according to the genders of the secondary school students?

The t-test results calculated in unrelated measurements for tendency of delinquency of the students according to their genders are shown in Table 7. When Table 7 is examined, it is determined that there is a significant difference between the primary tendency of delinquency of the secondary school students according to their gender ($t_{(1483)}=2,78$, $p < 0,05$). This significant difference results from the primary tendency of delinquency of female students ($\bar{X}=56,22$) being at higher level than male students ($\bar{X}=54,77$). It was also identified that the tendency of delinquency of secondary education students according to their gender was also significantly different ($t_{(1483)}=2,75$, $p < 0,05$).

Similarly, secondary tendency of delinquency of female students ($\bar{X}=48,14$) was identified to be higher than male students ($\bar{X}=46,85$). A significant difference is seen between the tendencies towards exhibiting delinquency according to the genders of secondary education students ($t_{(1483)}=2,99$, $p<0,05$). This significant difference also identified that general tendency of delinquency of female students ($\bar{X}=104,36$) was higher than male students ($\bar{X}=101,67$).

Table 7: Independent-Sample t-Test Results on Differences between Sub-Factors and General Tendencies of KDD Scale According to Genders of the Students

	Gender	N	\bar{X}	S	t	sd	p
Primary KDD	Female	675	56,22	9,86	2,78	1483	,006*
	Male	810	54,77	10,10			
Secondary KDD	Female	675	48,14	9,38	2,75	1483	,006*
	Male	810	46,85	8,72			
General KDD	Female	675	104,36	17,47	2,99	1483	,003*
	Male	810	101,67	17,13			

* $p<,05$

3.4 Is there any difference between the sub-factors of the delinquency scale and the tendency to the overall scale according to the secondary education type of the secondary school students?

The t-test results calculated in unrelated measurements for tendency of delinquency of the students according to the type of their secondary education are shown in Table 8.

Table 8: Independent-Sample t-Test Results on Differences between Sub-Factors and General Tendencies of KDD Scale According to Secondary Education Type of the Students

	Type of Secondary Education	N	\bar{X}	S	t	sd	p
Primary KDD	General High School	784	57,69	9,88	9,47	1483	,000*
	Sports High School	701	52,91	9,55			
Secondary KDD	General High School	784	49,98	8,62	11,99	1483	,000*
	Sports High School	701	44,59	8,67			
General KDD	General High School	784	107,67	16,70	11,74	1483	,000*
	Sports High School	701	97,55	16,46			

* $p<,05$

When Table 8 is examined, it is determined that there is a significant difference between the primary tendency of delinquency of the secondary school students according to the type of secondary education ($t_{(1483)}=9,47$; $p<0,05$). When the average scores are examined, it was identified that the primary tendency of delinquency of the students in general high school ($\bar{X}=57,69$) is higher than those in sports high school ($\bar{X}=52,91$). Scores of students participating in the research regarding Secondary KDD sub-factor were identified to show a significant difference according to the type of secondary education ($t_{(1483)}=11,99$; $p<0,05$). When the average values are examined, the tendency of

delinquency of the students in general high school ($\bar{X}=49,98$) was identified to be higher than those in sports high school ($\bar{X}=44,59$).

Lastly in Table 8, it is seen that there is a significant difference due to general tendency of delinquency of the students in general high school ($\bar{X}=107,67$) is higher than those in sports high school ($\bar{X}=97,55$) ($t_{(1483)}=11,74$, $p<0,05$).

3.5 Is there any difference between the sub-factors of the delinquency scale and the tendency to the overall scale according to the attendance to a sports activity of general high school students?

The t-test results calculated in unrelated measurements for tendency of delinquency of the general high school students according to attendance to a sports activity are shown in Table 9.

Table 9: Independent-Sample t-Test Results on Differences between Sub-Factors and General Tendencies of KDD Scale According to Attendance to Sports Activity of General High School Students

	Status	N	\bar{X}	S	t	sd	p
Primary KDD	Yes	176	54,72	11,22	4,59	782	,000*
	No	608	58,55	9,30			
Secondary KDD	Yes	176	47,91	8,97	3,64	782	,000*
	No	608	50,58	8,43			
General KDD	Yes	176	102,63	18,10	4,61	782	,000*
	No	608	109,13	15,99			

* $p<0,05$

When Table 9 is examined, it is determined that there is a significant difference between the primary tendency of delinquency of the secondary school students according to the status of their attending a sports activity ($t_{(782)}=4,59$, $p<0,05$). This significant difference results from the tendency of delinquency of the students attending to any sports activities ($\bar{X}=54,72$) being lower than those not attending any sports activities ($\bar{X}=58,55$). A significant difference was also identified between the secondary tendency of delinquency of secondary education students according to their attendance to sports activities ($t_{(782)}=3,64$, $p<0,05$). When the averages are examined, secondary tendency of delinquency of students attending to any sports activities ($\bar{X}=47,91$) is higher than those not attending any sports activities ($\bar{X}=50,58$). A significant different was also identified between the tendency of delinquency of students according to their status of attending any sports activities ($t_{(782)}=4,61$, $p<0,05$). This significant difference results from the general tendency of delinquency of students attending any sports activity ($\bar{X}=102,63$) compared to those not attending ($\bar{X}=109,13$).

3.6 Is there any difference between the sub-factors of the delinquency scale and the tendency to the overall scale according to the attendance to an extracurricular sports activity of general high school students?

The t test was calculated for unrelated measurements in order to determine whether the scores of the students who attended to extracurricular sports activities in primary education showed a significant change. The results were given in Table 10.

Table 10: Independent-Sample t-Test Results on Differences between Sub-Factors and General Tendencies of KDD Scale According to Attendance to Extracurricular Sports Activity of General High School Students

	Status	N	\bar{X}	S	t	sd	p
Primary KDD	Yes	470	56,20	10,26	5,26	782	,000*
	No	314	59,92	8,85			
Secondary KDD	Yes	470	49,36	8,27	2,48	782	,013*
	No	314	50,91	9,04			
General KDD	Yes	470	105,56	16,91	4,38	782	,000*
	No	314	110,83	15,87			

*p<,05

When Table 10 is examined, it is determined that there is a significant difference between the primary tendency of delinquency of the secondary school students according to the status of their attending an extracurricular sports activity ($t_{(782)}=5,26$, $p<0,05$). This significant difference results from the tendency of delinquency of the students attending to any extracurricular sports activities ($\bar{X}=56,20$) being lower than those not attending any extracurricular sports activities ($\bar{X}=59,92$). A significant difference was also identified between the secondary tendency of delinquency of secondary education students according to their attendance to sports activities when in primary school ($t_{(782)}=2,48$, $p<0,05$). This significant difference results from the general tendency of delinquency of students attending any sports activity when in primary school ($\bar{X}=49,36$) compared to those that did not ($\bar{X}=50,91$). It was identified that tendency of delinquency of secondary school students when in primary school according to their attendance to extracurricular sports activities showed a significant change ($t_{(782)}=4,38$, $p<,05$). When the averages are examined, secondary tendency of delinquency of students attending to any extracurricular sports activities when in primary school ($\bar{X}=105,56$) is higher than those that did not ($\bar{X}=110,83$).

3.7 Is there any difference between the sub-factors of the delinquency scale and the tendency to the overall scale according to the attendance to current extracurricular sports activity of general high school students?

The results of the One Way ANOVA test, which is calculated to determine the difference between the tendencies of delinquency of the students according to the attendance to current sporting activities are shown in Table 11.

Table 11: One-Way ANOVA Results on Differences between Sub-Factors and General Tendencies of KDD Scale According to Attendance to Current Extracurricular Sports Activity of General High School Students

	Status	N	\bar{X}	S	F(2-781)	p	Post Hoc (Tukey)
Primary KDD	1 Year	90	57,33	10,09	11,48	,000*	2<1, 2<3
	2 Years	86	53,03	11,29			
	I don't Attend	608	58,40	9,47			
Secondary KDD	1 Year	90	47,91	9,31	8,28	,000*	1<3, 2<3
	2 Years	86	47,44	7,81			
	I don't Attend	608	50,64	8,52			
General KDD	1 Year	90	105,24	18,02	11,28	,000*	1<3, 2<3
	2 Years	86	100,48	17,54			
	I don't Attend	608	109,05	16,09			

*p<05 Categories: 1 Year=1; 2 Years=2 and I don't Attend=3

When Table 11 is examined, it is determined that there is a significant difference between the primary tendency of delinquency of the secondary school students according to the status of their attending to a current extracurricular sports activity ($F_{(2-781)}=11,48$, $p<0,05$). As a result of Tukey Test calculated, the significant difference was resulted from tendency of delinquency of students attending to current extracurricular sports activities in their schools for 2 years ($\bar{X}=53,03$) being lower than students attending for 1 year ($\bar{X}=57,33$) and not attending ($\bar{X}=58,40$). It was identified that there is a significant difference between the tendency of delinquency of secondary school students' status of attending current extracurricular sports activities in their schools ($F_{(2-781)}=8,28$, $p<0,05$). This significant difference results from tendency of delinquency of students not attending ($\bar{X}=50,64$) current extracurricular sports activities in their schools being higher than those attending for 1 year ($\bar{X}=47,91$) and 2 years ($\bar{X}=47,44$). It was identified that tendency of delinquency of secondary school students according to their attendance to current extracurricular sports activities in their schools showed a significant change ($F_{(2-781)}=11,28$, $p<0,05$). As a result of Tukey Test calculated, primary, secondary and general tendency of delinquency of students not attending ($\bar{X}=109,05$) to extracurricular sports activities in their schools is higher than those attending for 1 year ($\bar{X}=105,24$) and 2 years ($\bar{X}=100,48$).

4. Discussion

In this study, it was aimed to determine the tendency of delinquency according to the level of delinquency of sports and general high school students and the attendance of general high school students in extracurricular sport activities. Accordingly, 1485 students in secondary education in 2015-2016 academic year were requested to fill out the "Delinquency Scale" considering physical education lesson.

It was determined that the students who participated in the research had a primary tendency of delinquency in physical education class as 3.69 out of 5, secondary

tendency of delinquency as 3.64 and general tendency of delinquency as 3.67 out of 5. It was concluded that the primary, secondary and general tendency of delinquency of the students whose views were taken within the scope of the research were above average according to the results of the scale they filled by considering the physical education lesson. Apaydın (2010) conducted a study with 486 students in general high school level in Ankara in the 2009-2010 academic year, and found that the primary, secondary and general tendency of delinquency of the students were low. Moreover, in the study of Şahin (2015), it was determined that 35.74% of the students showed high level of delinquency and 64.26% had low level of delinquency. Accordingly, it can be said that the tendency of delinquency of the students may be increased depending on the time. Since the sample of the research (province etc.) is different from the other studies, it is possible to calculate levels of tendency of delinquency of the students differently.

There was a significant difference in the primary tendency of delinquency of the students according to their grade levels ($p < 0,05$) and secondary and general tendencies of delinquency did not show any significant change according to their grade level ($p > 0,05$). In the study of Apaydın (2010), it was also found that the tendencies of delinquency of the students according to their grade levels did not show any significant difference. Secondary school students are classified as adolescents and exhibit similar characteristics, despite they study in the same school and at different grade levels; and there are many common points. For this reason, it can be said that the tendency of delinquency of the students did not show any significant difference according to their grade levels.

Primary, secondary and general tendency of delinquency of the students according to their gender was found to be significantly different ($p < 0.05$). The average scores were examined and it was determined that female students had a higher tendency of delinquency than male students. Eripek (1980) found that male students had higher disciplinary problems than female students. Şenses (1990) also revealed that anti-disciplinary behaviors of female students were lower than male students. In Çetin's (2004) study on attitudes towards violence with secondary school students, it was determined that female students had lower levels of violence attitudes than male students. Balkaya and Ceyhan (2007) also found that female students had lower levels of committing crime than male students. In the study of Apaydın (2010), contrary to the findings of this research, it was found that the tendency of delinquency of the female students was lower compared to male students. Bulut (2010) also found in the study conducted with secondary education students that tendency of delinquency of female students against male students was lower. In Şahin's (2015) study, it was also identified gender is an important explanatory of delinquency; male students were found to have a higher tendency of delinquency compared to girls. This was interpreted as the fact that in the social gender roles, delinquency was not fit for females, and due to the role of male in the society, males can exhibit more delinquency (Yüksel Şahin, 2015). Accordingly, the tendency of delinquency of female students compared to male students being higher can be explained in the scope of this research as forming of

potential in female students due to being suppressed by society. Because, unlike other studies, the tendency of delinquency was identified in this research.

It was determined that the primary, secondary and general tendency of delinquency according to the type of school they study were significantly different ($p < 0,05$). Students in general high school education have a higher tendency of delinquency than students in sports high school. Doğan (2015), in his study also found that the tendency of delinquency of the students according to the type of school they study was significantly different. Students studying at the Sports High School attend to many activities where they can activate kinesthetic intelligence types. In this respect, it can be said that the tendency of delinquency may be lower than that of general high school students.

Opinions of the students who are going to the sports high school and the general high school were taken in the research. The students at Sports high school attend to sporting events as part of their education. In this respect, it was determined that the primary, secondary and general tendency of delinquency according to the attendance to a sports activity status of general high school students was significantly different ($p < 0,05$). It was determined that the students who did not attend in sports activities had a higher tendency of delinquency compared to those attending. According to research of Apaydın (2010), the tendency of delinquency of the students according to the status of training in an instrument showed a significant change. It was determined that the students who did not train in an instrument had a higher tendency of delinquency than the students who did. In the study conducted by Gelbal (2007), the reasons for secondary school students resorting to violence were examined and it was determined that the lack of social activities that were interesting to students and enable them to develop themselves led to violence in students. Accordingly, it is proposed to provide social, sports and cultural activity areas in the schools (Gelbal, 2007). Güven (2002) pointed out the importance of social, cultural and sports activities to prevent crime in school. It has been determined that individuals who feel more belonging to a group obey the rules more and the sense of belonging has a significant explanatoriness on the delinquency of individuals (Doğan, 2015). In the research of Baş et al., (2013), it was found that the personality scores of the students participating in physical education lessons and sports activities were significantly higher. In this respect, it can be stated that the students who participated in any sports activities have a lower tendency of delinquency because they feel more belonging to a group and participated in activities more suitable for their interests and potentials.

It was determined that the tendency of delinquency of the students in general high school according to their attendance in extracurricular sports activities when they were in primary school ($p < 0,05$). It was determined that the primary, secondary and general tendency of delinquency of the students who did not attend to any sports activities at the primary education level were higher compared to those attending. Personal development of the individuals becomes important from the beginning of the education life. Accordingly, it is observed that children who start sports activities early adopt rules more.

It was determined that the tendency of delinquency of the students attending general high school according to their attendance in sports activities in schools showed a significant change ($p < 0.05$). It has been found that the primary tendency of delinquency of students to attend in sports activities for 2 years and longer is lower than other students. It was determined that general high school students who did not attend in any sports activities had a higher secondary and general tendency of delinquency than the other students. Bulut Ateş and Akbaş (2012), in their study with 695 secondary school students, pointed out that life quality of the students had an effect on the delinquency; The students with low quality of life had higher levels of delinquency than those with high quality of life. Volois, Robert, Zullig, Huebner and Drane (2001) also found that students with low quality of life had a higher level of crime-committing potential. This may be due to the fact that the students performing activities to direct their energy and potentials eliminates the need to be guilty and the reasons underlying these behaviors (attention, lack of self-confidence, etc.).

5. Conclusion and Suggestions

As a result of this research, it was determined that the tendency of delinquency of students who are studying at high school was above the average. The primary, secondary and general tendency of delinquency of students in general high school education was found to be higher than that of students in sports high school education. It was concluded that the students in general high school who did not attend any sports activities a higher tendency of delinquency than the students who attend to sports activities. At the same time, it was determined that primary, secondary and general tendency of delinquency of the students who did not attend in any sporting activity in primary education were higher than the students who did. When the findings obtained as a result of the research are combined, it is seen that sports activities have an impact on the tendency of delinquency of secondary school students. According to the results of the research, it is suggested that students should be directed to sports activities in primary school level and measures should be taken in schools to effectively and efficiently perform physical education lessons. Physical education lesson should be given as a mandatory instead of optional in secondary school curriculum. A positive learning environment should be presented to the students by eliminating the deficiencies in tools and equipment and field for the physical education lessons. Students should also be encouraged to participate in extracurricular sports activities. In addition, activities, seminars and workshops can be held with all stakeholders including school head, parents, teachers and students to show the importance of sports. Accordingly, it is suggested to cooperate with sports administrations.

It is recommended that this research be repeated at different grade levels and with students studying in different provinces and the results to be compared.

References

- Apaydınlı, K., (2010). *Genel lise öğrencilerinin kural dışı davranış gösterme eğilimleri ile müzik eğitimi arasındaki ilişkinin incelenmesi*. Yayınlanmamış Doktora Tezi. Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.
- Balkaya, A., Ceyhan, E. (2007). Lise öğrencilerinin suç davranış düzeylerinin bazı kişisel ve ailesel nitelikler bakımından incelenmesi. *Aile ve Toplum Dergisi*, 3(11), 13-27.
- Baş M, Şebin K, Aydın E, Öztürk. (2013). Personality Characteristics Of High School Students With The Relationship Between Of Sports Participation. *Journal of Physical Education and Sport Sciences*, 15(1), 65-75.
- Başar, H. (2001). *Sınıf yönetimi*. Ankara: Pegem Akademi Yayıncılık.
- Bulut, F. (2010). *Ergenlerde görülen kural dışı davranışların aile işlevselliği, aile risk faktörü ve yaşam kalitesi açısından incelenmesi*. Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.
- Cole, D. A. (1987). Utility of confirmatory factor analysis in test validation research. *Journal of Consulting and Clinical Psychology*, 55, 584-594.
- Çetin, H. (2004). *Öğrenci ergenleri şiddete yönelik tutumları: Yaş ve cinsiyete göre bir inceleme*. Yayınlanmamış Yüksek Lisans Tezi, Ankara Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.
- Doğan, A. (2015). *Ortaöğretim öğrencilerinin kural dışı davranış göstermelerinde öğrenim hayatlarını denetleyememe inancı, özsaygı ve okula aidiyet duygularının rolü*. Yüksek lisans tezi, Mersin Üniversitesi Eğitim Bilimleri Enstitüsü, Mersin.
- Erdoğan, İ. (2001). *Sınıf yönetimi, ders, konferans, panel ve seminer etkinliklerinde başarının yolları*. İstanbul: Sistem Yayıncılık.
- Eripek, S. (1980). *Ankara ili merkezinde bulunan ortaöğretim kurumlarında disiplin uygulamaları ve bu uygulamaların uyum sorunları yönünden değerlendirilmesi*. Yayınlanmamış doktora tezi, Ankara Üniversitesi, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.
- Fernandez-Balboa, J. M. (1991). Beliefs, interactive thoughts, and actions of physical education student teachers regarding pupil misbehaviors. *Journal of Teaching in Physical Education*, 11, 59–78.
- Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education*. New York: McGraw-Hill.
- Gelbal, S. (ed.). (2007). *Okullarda şiddetin önlenmesi: Mevcut uygulamalar ve sonuçları*. Ankara: Türk Eğitim Derneği ve Pegem A Yayıncılık.
- Goyette, R., Dore, R., & Dion, E. (2000). Pupils' misbehavior sand the reactions and causal attributions of physicaleducation student teachers: A sequential analysis. *Journal of Teaching in Physical Education*, 20, 3–14.
- Güven, M. (2002). Okul güvenliğinde psikolojik danışmanların rolü ve görevleri. *Eğitim Araştırmaları*, 5(9), 68-72.
- Hardy AC. (1999). *Learning and teaching in physical education*. London: Falmer Press.

- Hastie, P., & Siedentop, D. (1999). An ecological perspective on physical education. *European Physical Education Review* 5, 9–19.
- Kline, R.B. (2005), *Principles and practice of structural equation modeling*. New York: The Guilford Press.
- Korkmaz, İ. (2005). İstenmeyen davranışların önlenmesi. (ed.Zeki Kaya), *Sınıf yönetimi*, Ankara: PegemA Yayıncılık.
- Kulinna, P. H., Cothran, D. J., & Regualos, R. (2006). Teachers' reports of students misbehavior in physical education. *Research Quarterly for Exercise and Sport*, 77, 32–40.
- Kuş, Z., Karatekin, K. (2009). Öğrencilerin okul ortamında kurallara uygun davranma yeterliklerinin çeşitli değişkenler açısından incelenmesi. *Kırşehir Eğitim Fakültesi Dergisi*, 10(1), 183-196.
- McCormack, A. (1997). Classroom management problems, strategies and influences in physical education. *European Physical Education Review*, 3, 102–115.
- Neyişçi-Karakaş, B. (2005). İlköğretim birinci kademe öğrencilerinde gözlenen istenmeyen davranışlar ve öğretmenlerin bunlarla başa çıkma yöntemleri. Yayımlanmamış yüksek lisans tezi, Celal Bayar Üniversitesi Sosyal Bilimler Enstitüsü, Manisa.
- Özdamar, K., (2004). *Paket programlar ile istatistiksel veri analizi I*. Eskişehir: Kaan Kitapevi.
- Özdemir, S., ve Yalın, H. İ. (2000). *Öğretmenlik mesleğine giriş*. Ankara: Nobel Yayınevi.
- Özyiğit, C. (1991). *Hareket*. 1. Eğitim Kurumlarında Beden Eğitimi ve Spor Sempozyumu, 17-21 Aralık 1991, Milli Eğitim Bakanlığı Basımevi, İzmir.
- Suppaporn, S. (2000). High school students' perspectives about misbehavior. *Physical Educator*, 57, 124–135.
- Sümer, N. (2000). Yapısal eşitlik modelleri: Temel kavramlar ve örnek uygulamalar. *Türk Psikoloji Yazıları*, 3(6), 49-74.
- Şenses, V. (1990). Tokat ili merkez ve ilçe ortadereceli okul öğrencilerinin disipline aykırı davranışlarda bulunma nedenlerinin araştırılması. Yayımlanmamış Yüksek Lisans Tezi, Gazi Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.
- Şişman, M., (2006). *Eğitim bilimine giriş*. Ankara: PegemA Yayıncılık.
- Tezbaşaran, A. (1997). *Likert tipi ölçek geliştirme kılavuzu*. Ankara: Türk Psikologlar Derneği Yayını.
- Valois, R. F., Zullig, K. J., Huebner, E. S., Drane, J. W. (2001). Relationship between life satisfaction and violent behaviors among adolescents. *American Journal of Health Behavior*, 25(4), 353-366.
- Wang, M. C., G. D. Haertel, & Herbert J. W. (1993). Toward a knowledge base for school learning. *Review of Educational Research*, 63(3), 249-294.
- Yüksel-Şahin, F. (2015). Predicting delinquency levels in Turkish adolescents. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 30(1), 313-323.

Creative Commons licensing terms

Author(s) will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Education Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflicts of interest, copyright violations and inappropriate or inaccurate use of any kind content related or integrated into the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).